What is Claimed is:

1. An isolated factor or active fragment thereof derived from the bacterium *Pseudomonas aeruginosa* that modulates plasma membrane expression of ABC transmembrane proteins.

2. A composition comprising a mimetic of the isolated factor or active fragment thereof of claim 1.

3. A method for modulating plasma membrane expression of an ABC transmembrane protein in a cell comprising administering to the cell the isolated factor or active fragment of claim 1 or the mimetic of claim 2.

4. A method for delivering a small molecule therapeutic agent to the central nervous system of a subject comprising:

(a) administering to the subject the isolated factor or active fragment of claim 1 or the mimetic of claim 2 so that expression of an ABC transmembrane protein which prevents small molecules from entering into or accumulating in the central nervous system is inhibited in the subject; and

(b) administering to the subject the small molecule therapeutic agent.

5. A method for treating cancer in a subject comprising:

(a) administering to the subject the isolated factor or active fragment of claim 1 or the mimetic of claim 2 so that expression of an ABC transmembrane protein which confers drug resistance in cancer cells is inhibited in the subject; and

(b) administering to the subject an anti-cancer agent.

6. The method of claim 5 wherein the cancer is resistant to therapy due to overexpression of ABC transmembrane proteins.

7. The method of claim 5 wherein the cancer comprises a cancer of the central nervous system.

8. A method for treating secretory diarrhea in a subject comprising administering to the subject the isolated factor or active fragment of claim 1 or the mimetic of claim 2 so that plasma membrane expression of intestinal CFTR is reduced and massive fluid and electrolyte losses in secretory diarrhea is inhibited.

9. A composition comprising an agent which inhibits suppression of plasma membrane expression of ABC transmembrane proteins by the isolated factor or active fragment thereof of claim 1.

10. The composition of claim 9 wherein the agent inhibits suppression of expression of CFTR.

11. A method for inhibiting suppression of CFTR expression in cells infected by *Pseudomonas aeruginosa*, said method comprising administering to the cells the composition of claim 10.

12. A method for treating or alleviating symptoms of a subject suffering from cystic fibrosis comprising administering to the subject the composition of claim 10.

13. The method of claim 12 further comprising administering to the subject a therapy which promotes CFTR exit from an endoplasmic reticulum, activates CFTR in an apical plasma membrane, or increases half-life of CFTR in

an apical membrane.

14. A method for identifying an agent for treatment or alleviation of symptoms of cystic fibrosis comprising assessing a test agent's ability to inhibit suppression of CFTR expression by the isolated *Pseudomonas aeruginosa* factor of claim 1, wherein the ability of the test agent to inhibit suppression of CFTR expression by the isolated *Pseudomonas aeruginosa* factor is indicative of the agent being useful for treatment or alleviation of symptoms of cystic fibrosis.